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An

Inaugural Dissertation,

ON

Acute Rheumatism.

BY

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York Penna.

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Acute Rheumatism.

The sudden vicissitudes of climate to which the inhabitants of the United States are exposed, render Rheumatism a very frequent disease among them, and as it is one in which improper treatment is likely to be attended with distressing, if not dangerous consequences, a more particular attention to it is not unadvisable.

In the following Dissertation, therefore, the endeavour will not be, to point out a new method of cure, but to impress more strongly those principles which our Alma Mater teaches, and which experience proves, are the result of sound discrimination and correct judgement. Our aim will be to offer a brief account of the Causes, Symptoms, diagnosis, treatment, and prophylaxis.

Acute Rheumatism is placed by Cullen among the Phlegmasiae and is "a disease from an external and often an evident cause; pyexia, pain about the joints following the course of the muscles;

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fixing upon the knees and larger joints in preference to those of the feet or hands, increased by external heat."
He next divides it into two species, the acute and chronic; the presence of pyrexia distinguishing the acute from the chronic form. Dr Armstrong has suggested the propriety of establishing an intermediate, or sub-acute species, without, perhaps, much practical benefit; as the presence of fever being necessary in the latter form, the treatment will necessarily be embraced by that of the first.

Causes. The chief predisposing cause of Rheumatism is generally admitted to be frequent alternations of heat and cold, dryness and moisture, and attacks are most often met with in the Spring and Autumn. Among the exciting causes may be mentioned obstructed perspiration, from the sudden application of cold to the body, when in a heated or excited state; long continued application of cold from wearing wet or damp clothes, lying upon damp ground &c.

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As to the proximate cause some division of sentiment exists. Some pathologists limit the disease to an inflammation of the tendinous aponeuroses or fibrous textures surrounding the joints, and bursae mucosae, and the terminations of the muscular fibres; while others contend that the muscular fibres themselves may be affected. This peculiar inflammation may affect the muscular fibres themselves, or at least the fine membrane surrounding them, so as to make it difficult to distinguish the true seat. There is certainly a peculiarity in Rheumatic inflammation, which distinguishes it from the phlegmonic, as but few instances of suppuration have been met with; so few indeed that it only proves that it is not the natural termination. Professor Chapman mentions one instance in the course of his extensive experience, and Dr. Ford, two. Another peculiarity of this inflammation is its erratic tendency.

Most frequently seated in the larger joints, it occasionally deserts them, attacking the bowels,

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diaphragm, stomach, head and even the fountain of animal life itself. Of its attacking the bowels, cases are mentioned by many late writers, particularly by Richter, who says, he has seen alternations of Rheumatism and Diarrhoea, which left no doubt on his mind of the rheumatic nature of the latter disease. In one case which came under my observation, the disease suddenly receded from the joints to the head, producing all the symptoms of Phrenitis and which must have terminated fatally, but for the most copious depletion by venesection and the application of sinapisms and blisters to the original seat of the disease. This succeeded in relieving the pain, restoring the inflammation to the joints; and the patient recovered by the ordinary method of treatment. I shall cite one case to prove that the Uterus itself may be the seat of Rheumatic inflammation. A young woman aged about nineteen years, in the seventh month of her pregnancy, from seating herself upon damp ground when heated by exercise, was soon after

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seized with an attack of acute Rheumatism of the joints, which continued for two weeks with peculiar obstinacy. She, as well as her Mother, resisted the use of the Lancet as freely as it was wished to be employed in the commencement, and about the third week, the pain and inflammation suddenly receded from the joints and attacked the Uterus, producing great tenderness of the Hypogastric and Umbilical regions, and alternations of pain in the Uterus resembling those of parturition, but much more severe.

The Os Tincae was found closed, hard and rigid, without the smallest tendency to dilate or to be affected by the pains during the whole time. Venesection, as freely as the system would bear, with sinapisms & blisters to the abdomen, and extremities, and eventually very large doses of Opium and Dover's powder with Calomel, which produced ptyalism, were used without success; and she finally died, exhausted by the severity of her sufferings, without her Physician being able to remove the disease from the seat to which it had been translated,

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or to bring on parturition, from the very rigid and contracted state of the Os Tincae. The disposition to attack the heart was first pointed out by Sir David Dundas, and his observations have been verified by Drs Chapman, Armstrong, Potter and late writers. The post Mortem examinations exhibiting a layer of fibrin or coagulable lymph upon the internal surface of the heart, with an enlargement or altered structure of the organ itself.

Symptoms. The attack generally comes on with lassitude and rigors, succeeded by heat, and flushings of the face, thirst, anxiety, restlessness, hard, full and quick pulse. The tongue in the commencement of the disease is white, the bowels are generally costive, there is great repugnance to food and depression of spirits. After a short time excruciating pains are felt in different parts of the body, particularly in the joints of the knees and ankles, afterwards in the joints of the shoulders and wrists, and sometimes in the hips.

The smaller toes and fingers are least liable to this inflammation.

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There is usually an exacerbation of the fever towards evening, and during the night the pains become more severe and shift from one joint to another. The face, particularly during the exacerbation, is red and somewhat swelled; the urine high coloured, sometimes without sediment, and at other times particularly in the morning, and when there is much sweating, it deposits a sediment of a white or reddish colour, and the patient complains of ardor urinae.

Diagnosis. Acute Rheumatism may be confounded with Gout, and it is of importance to discriminate accurately between them. We may generally decide from a concurrence of circumstances.

Rheumatism rarely attacks a single joint, as in the primary attacks of Gout; the exciting cause is evident, the limbs affected do not possess the varnished, glossy appearance of Gout; nor does desquamation take place; the veins are less turgid, the surface less acutely sensible, either to the touch or to any concussion, with less weight and disability.

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The diagnosis is also assisted by the consideration of the habits of the patient, and of hereditary predisposition, which in Gout frequently prevails. The most striking distinction, according to Professor Chapman, is, that Rheumatism never arises from the stomach, like gout.

It may be distinguished from Nephritis, when it attacks the loins, by the absence of that peculiar sickness of stomach, pain shooting down the thigh, the retraction of the testicle, and the greater ease in bending the body, which characterize the latter disease.

From stone in the kidney or ureter, by the more regular secretion of urine. The affection of the bowels and yellowness of the skin distinguish Hepatitis.

Rheumatic pains in the chest resemble peripneumonia, and in the abdomen, Enteritis. In each case the soreness to the touch, the pain felt at the origin and insertion of the muscles will sufficiently distinguish the nature of the disease.

Treatment. Bloodletting is the chief remedy in this disease. The blood must be drawn from a large

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orifice, in a considerable quantity, and frequently repeated in proportion to the frequency, fulness, and hardness of the pulse, and the violence of the pain. Large and repeated bleedings, during the first days of the disease, are imperiously demanded. Cathartics have been much recommended in acute Rheumatism. "The advantage, says Dr. Scudamore, of making a detraction from the general circulation by the channel of the alimentary canal, is no less remarkable in Rheumatism, than in every other inflammatory disease." "By the use of cathartics the circulation is moderated, the inflammatory diathesis subdued, and the absorbent system is excited to increased action". Drastic cathartics ought not to be employed in the treatment of this disease. Laxatives, on the contrary, are preferable and of great service. "They remove intestinal irritation, they equalize the circulation, and lessen the action of the heart & arteries." Purging with the Neutral salts is the best auxiliary to bloodletting we have in this disease, and it is seldom sufficiently employed. . . .

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"A solution of glauber, epsom or rochelle salts in a strong infusion of Senna and Manna" is a good preparation. The mild Mercurial Cathartics have also been much recommended. Emetics have been employed in this disease, some writers think with advantage, after the excitement is moderated by bleeding. Dr. Philip thinks, nauseating doses are preferable.

When arterial action has been in some measure subdued, the use of the Colchicum may be found highly beneficial. It is said to moderate, like digitalis, arterial action, relieve the determination to the head or chest, when these exist, and to mitigate pain, and Dr. Armstrong almost recommends it in preference to his favourite remedies of calomel and opium. In cases of relapse it proved decidedly beneficial.

I am aware, that in this country, this medicine has not sustained the reputation it has acquired abroad, but this has proceeded, probably, more from the want of uniformity in the strength of the preparations of it, than of efficacy in the article itself.

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Sweating has been universally employed in this disease, by every discription of practitioners. It can only be beneficial when venesection has been premised.

Sweating is hurtful in the early stage of the complaint; even if it then comes on spontaneously it is hurtful. The diaphoretics to be used are the mild antimonials, and after these, the more stimulating.

Of these, the best is the Dover's powder.

"In favour of this medicine, says Professor Chapman, I can give my unbiased testimony. But as a maxim pertinent to this case, let it be recollected that the Dover's powder is never admissible in this disease while any febrile excitement prevails, and when once begun, the sweating is to be steadily maintained for not less on an average than twenty four hours, and it should even be kept up during the continuance of the complaint; if we relax its use, it is hurtful".

Of the use of Opium in this disease, there is much difference of opinion. When given alone and at an early period, when the fever is considerable, it

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often does harm. Stork remarks "that when we attempt to procure sleep by anodynes, the patient becomes restless and giddy; troubled with disturbing dreams and startings during sleep, which instead of refreshing seems to fatigue him, the pulse becoming frequent, unequal and contracted". Should we not succeed with the diaphoretic plan and the disease threaten to become obstinate, we ought, as speedily as possible, to resort to Calomel as an alterative, and the best mode of exhibition is with Opium and Ipecacuanha; the proportion of each to be regulated by the peculiar circumstances of the patient. We shall generally find the pains relieved, the skin become soft and moist, the tongue clean, and the swellings disappear as soon as the mouth indicates the general action of the remedy. The Peruvian Bark has been serviceable towards the decline of the disease, when the fever returns at intervals, assuming the form of an Intermittent; or when the tongue becomes clean, the bowels natural, the skin relaxed, and simple debility prevails.

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Some have recommended the use of the Bark at an early period of the disease, but it is not proper unless the phlogistic diathesis is much abated, and the exacerbations of the disease are manifestly periodical. . .

Among the Local remedies, Bloodletting holds the chief place. But we cannot employ it while the pains are general; it is after the fever remits, when the pains still continue severe and fix themselves chiefly in a few of the joints, attended with some degree of redness and swelling, that it is of most service. . . .

Blistering may also be very effectual in removing the pain from a particular part, but will be of little benefit, except when the pains are much confined to one place. Rubefacients and Camphor often relieve the pains, but they commonly shift them from one part to another. The essence of mustard is a popular remedy as an external application. Fomentations in the beginning of the disease, rather aggravate, than relieve the pains. The Actual Cautery and the Moxa have been employed and are said to be effectual,

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when the disease is obstinately fixed in particular joints. The temperature of the patients room should be kept cool and as uniform as possible. He should not be laid up in blankets or loaded with cloathing to promote perspiration, and as some think, to prevent taking cold; this may be useful in Chronic Rheumatism, when we wish to produce diaphoresis, when it is more frequently employed, and when the patient is more susceptible of cold.

There is no disease in which an abstemious diet is more demanded, than in acute Rheumatism. It should consist of the mildest kind. Barley water, rice water, currant jelly dissolved in water, and other articles, bland and vegetable.

By using a diet the least stimulating, the disease has been aggravated; when the disease assumes the Chronic form, a more generous diet may be allowed.

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Prophylaxis. Persons who have had an attack of Rheumatism are affected with it on every occasion of exposure to a moist atmosphere or a cold east wind.

Sydenham mentions a prophylactic remedy, which with him, has been very serviceable. He advises "that every morning, the patient should wash his head and neck, by means of a coarse towel, with cold water; and sponge the feet, also every morning with water, just freed from any unpleasant chill by the addition of warm water".

Those who are predisposed or subject to Rheumatism ought carefully to avoid all exposure to cold and wet, and should also be very particular with regard to clothing, and wear flannel next the skin.